

In the Claims

Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please cancel claims 1-6, 8-24, 28-37, and 42-48 without prejudice or disclaimer.

Please amend pending claims 7, 25-27, 38-40 and 49 as noted below.

1-6. (Canceled)

7. (Currently Amended) A method for regulating fuel metabolism in a plant, comprising, regulating UCP expression in a plant cell wall[/] or plasma membrane or chloroplast to regulate fuel metabolism of the plant.

8-24. (Canceled)

25. (Currently Amended) The method of claim 7, wherein the method involves decreasing the expression or activity of UCP in the plant cell wall[/] or plasma membrane or chloroplast.

26. (Currently Amended) The method of claim 25 wherein the expression or activity of UCP is decreased in the plant cell wall[/] or plasma membrane or chloroplast, ~~is decreased~~ by contacting the plant with a UCP inhibitor.

27. (Currently Amended) The method of claim 26, wherein the cell wall UCP inhibitor is a compound selected from the group consisting of UCP binding peptides, ~~such as~~ anti-UCP antibodies, UCP anti-sense nucleic acids, UCP dominant-negative nucleic acids, nucleotides, nucleotide analogs, tocopherols, and non-omega-3, -6 fatty acids.

28-37. (Canceled)

38. (Currently Amended) A method for producing a nutritionally enhanced plant, comprising:

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- 3 -

Art Unit: 1638

decreasing the expression or activity of UCP in the plant cell wall[/] or plasma membrane or chloroplast to produce a nutritionally enhanced plant.

39. (Currently Amended) The method of claim 38, wherein the expression or activity of UCP is decreased in the plant cell wall[/] or plasma membrane or chloroplast, ~~is decreased~~ by contacting the plant with a UCP inhibitor.

40. (Currently Amended) The method of claim ~~38~~ 39 wherein the UCP inhibitor is a chloroplast or cell wall UCP antisense sequence.

41. (Original) A plant produced by the method of claim 38.

42-48. (Canceled)

49. (Currently Amended) A method for preventing an infection in a plant, comprising:
decreasing the expression or activity of UCP in the plant cell wall[/] or plasma membrane or chloroplast in an amount to ~~prevent an increase in oxygen free radicals, and to~~ prevent infection in the plant.